

This guide is for potential applicants to the U.S. Department of Agriculture's (USDA) Small Business Innovation Research (SBIR) program. The document identifies unique aspects of the USDA's SBIR program, describes the nature of its topics, and links readers to additional agency resources. When used in conjunction with MTIP's [Profile of a Good Candidate](#), this guide will help prospective applicants determine quickly whether to pursue funding under the USDA SBIR program and how best to approach a proposal.



THE SBIR/STTR PROGRAMS

The federal Small Business Innovation Research (SBIR) program is a source of early-stage R&D seed capital for small, tech-based U.S. companies. Through 11 different participating agencies, this program offers grants or contracts to support serious R&D and commercialization of technologies of interest both to the government and to the company.

SBIR funding does not have to be matched or repaid by the small business. The award monies can be used to fund most costs associated with the R&D project and up to 7% profit. The company maintains ownership of any new intellectual property (IP), and the government retains certain rights to use the technology. SBIR is a three-phase program. Phase I is to establish the technical and often commercial feasibility of the proposed technology. Phase I awards can be as high as \$225,000, normally for a period of up to nine months. Phase II is to perform more in-depth R&D on the technology, ideally moving it to a prototype. Phase II awards range as high as \$1.5 million for a period of up to two years.

The objective of Phase III is commercialization of the technology. This phase is non-funded though some agencies offer extra assistance in the form commercialization support programs.

In SBIR Phase I, up to 33% of the total budget may go to outside consultants/subcontractors; in Phase II, this figure rises to 50%. In addition, for both Phase I and II, the Principal Investigator (PI) must be greater than 50% employed by the company for the duration of the project.

Each of the 11 participating agencies operates its own version of the SBIR. Within any given agency, the rules and requirements frequently change from one solicitation to the next. Prospective applicants must monitor closely each targeted agency's solicitations.

Overall, agencies report that the chance of winning a Phase I award ranges from is ~7% to ~15%. Well-qualified Montana applicants can substantially improve these odds by working closely with the no-cost services offered by the Montana Technology Innovation Partnership (MTIP). If not currently enrolled for MTIP services, see the information box at the end of this Guide.

THE USDA SBIR PROGRAM

USDA's SBIR program is an opportunity for small technology businesses to secure substantial R&D funding targeting the agricultural sector. Awards are made only to established business entities. Proposals may be submitted by individuals or groups of individuals prior to actually creating the company, but awards are made only to established business entities.

USDA operates its SBIR program through the National Institute of Food and Agriculture ([NIFA](#)). This website provides access solicitation when it is released. Prior to release, this website allow applicants to access valuable information regarding areas of interest and the review criteria used in selecting applications to be funded. The NIFA website also makes it easy for prospective applicants to review previous years' topics, which companies received awards, and for what projects. USDA changes its SBIR topics and instructions little from year to year, so knowing last year's topics provides insight into the coming year's topics.

USDA's SBIR award levels are different than many other agencies. In recent years, Phase I awards for technical feasibility have been capped at \$100,000, with project periods extending no more than eight months. Follow-on Phase II awards to develop and test a prototype have reached \$450,000 for projects extending up to two years. Only Phase I awardees are eligible to apply for Phase II.

Like all SBIR programs, USDA uses grants in making its SBIR awards, which therefore do not need to be matched or repaid. Ownership of any new technology stays with the company. The federal government will retain

certain rights to use SBIR-funded technology for government purposes in exceptional cases. Such use will not jeopardize the company's intellectual property rights in the technology.

Technologies funded through SBIR are driven by the USDA's perceived market needs, or "Research Topics." These topics are typically listed in Section 8 of USDA's annual program solicitation. The solicitation is usually released in the first half of June, with applications due in early September and awards expected to be announced by the second quarter of the following year.

USDA is serious about funding technologies that have a good chance of being successfully commercialized. The applicant's commitment to commercialization should be emphasized in the Phase I application and extended in the Phase II application in the form of a detailed commercialization plan. Applications reflecting a team approach involving both high-level technical expertise—preferably including university involvement—and strong industry relationships are likely to be reviewed most favorably.

IDENTIFYING AN APPROPRIATE TOPIC

Applicants must match their technology concept to one and only one topic identified in the Program Solicitation. Failure to make this match in USDA's SBIR program will likely lead to the application receiving little or no consideration unless it has prior approval from one of the SBIR program officials.

The following areas of interest are usually included among USDA's Research Topics:

Forests and Related Resources	Rural Development
Plant Production and Protection (Biology)	Aquaculture
Animal Production and Protection	Biofuels and Bio-based Products
Air, Water and Soils	Small and Mid-sized Farms
Food Science and Nutrition	Plant Production and Protection (Engineering)

Applicants may be invited to submit applications involving agriculturally related manufacturing technology and/or energy efficiency and alternative or renewable energy. Within their applications, applicants are strongly encouraged to address one or more of USDA's Societal Challenge Areas: Global Food Security and Hunger; Climate Change; Sustainable Bioenergy; Childhood Obesity; and Food Safety. USDA states that all of its topic areas have equal priority.

The write-up of each Research Topic includes valuable background information, a specific point of contact, and Other Key Information. **Read these details carefully!** Each broad Research Topic is then narrowed into more specific Research Priorities. Technologies falling within these priority areas receive more favorable treatment, while technologies falling outside these Research Priorities may or may not be accepted. USDA's priority areas tend to be more open and inviting than are topics in many other agencies—for instance, Increasing the Utility of Forest-Grown Material is typically a priority area under Forests and Related Resources.

CONTACTING THE AGENCY

When a topic is identified, the applicant should contact USDA's designated Program Leader for that broad topic area. Contact information is provided in the Research Topic description.

A good way to do this is to develop a 1-2 page write-up on the technology, send it to the Program Leader via email and follow up by phone. This write-up should concisely describe (a) the company, (b) the credentials of the applicant and team, (c) the technology and what makes it stand apart from existing technologies, (d) the market in terms of what the end product will be, who will buy it and why, an estimate of the number of potential buyers, and how the end product will reach the market, and (e) the competition.

This communication is meant to inform the applicant as to whether the proposed technology is something USDA might consider funding. In many cases, the Program Leader is able to clarify the applicant's understanding of the agency's need or suggest a different topic area. The applicant can decide whether to alter his/her original plans to accommodate this guidance. Having a technology rejected during this initial contact is discouraging.

PREPARING/SUBMITTING THE PROPOSAL

*The proposal's purpose is to provide sufficient information to persuade the review team that the proposed technology is a unique solution to the need expressed in the topic. **The proposal should be written at a level suitable for publication.** Following are general recommendations for ways in which applicants can enhance their chances for success:*

- **Start early.** Many aspects of the application can be planned and drafted well before USDA releases its annual SBIR/STTR solicitation. At the [NIFA website](#), applicants can access the prior years' solicitations with detailed instructions including topics that will most likely appear in the next opportunity. Becoming familiar with the agency's program requirements early allows the applicant to move much faster once the new topics are released, usually in early June. A one hour presentation on the USDA SBIR program can be viewed on [YouTube](#).
- **Pre-plan the project.** Before writing, applicants should meet with an MTIP counselor. The counselor will review proposal format and provide guidance on responding to each section. The project should be vetted against any special considerations identified under the targeted topic area, as well as against USDA's review criteria. Careful thought should be given to any needed project consultants and/or subcontractors, with the understanding that these individuals should be selected in part to strengthen the team's credentials. It may be appropriate to contact these individuals early to discuss the anticipated project, secure their buy-in, begin to collect resumes and biographical data, and maybe even co-opt their assistance in preparing the application.
- **Read the detailed instructions throughout the entire request for applications.** USDA has specific requirements for font size and style, page limits, marking confidential information, and many other aspects of the application. The agency routinely rejects applications that don't comply with its instructions. Because USDA seldom makes substantial changes to its instructions, applicants can learn a great deal about what to expect by reviewing the details of last year's request for applications.
- **Regardless of the applicant's experience with SBIR/STTR, allow time for at least one and preferably two MTIP reviews of the draft proposal.** These reviews help ensure the application is responsive to the instructions. Even the most experienced applicants have a tendency to get "off point" as they're working through the details of so many sections. The outside review helps catch this drift and ensures the discussion stays focused. Invariably, good outside reviews identify meaningful ways in which to enhance both the content and the presentation of the application. **There is strong evidence that MTIP's involvement in the proposal-preparation process strongly improves the chance of funding.**

Several USDA sample proposals can be found on the [USDA website](#). Applicants are cautioned, however, that these samples are quite dated, and much has changed since these applications were submitted.

*All applicants to USDA's SBIR program are required to submit their applications electronically as .pdf documents through [Grants.gov](#). Companies must first register to use Grants.gov, a process that requires a Taxpayer ID Number (TIN), a DUNS number, and a Cage Code. **All are free**, but if the applicant does not already have these identifiers, each can involve several days to a week or more to obtain. Applicants should tend to these registration requirements as soon as the decision is made to submit an application.*

Applicants should refer to the document [A Guide for Preparation and Submission of NIFA Applications](#) for additional assistance in completing the application forms. **NOTE: Instructions in the Program Solicitation take precedence over those in the Guide.**

The submission process can be complicated and troublesome. USDA urges applicants unfamiliar with Grants.gov to allow several weeks to prepare for this submission process. MTIP recommends applicants submit their completed applications at least three days before the due date. This margin will avoid any electronic jam-up that can occur when hundreds of documents are being submitted at the last minute. These three days can also be critical if errors in the submission process need to be rectified.

READY FOR THE NEXT STEP?

This agency-specific SBIR guide has been prepared by the Montana Technology Innovation Partnership (MTIP) and does not imply endorsement from the U.S. Department of Agriculture. A program of the Montana Department of Commerce, MTIP provides free coaching to Montana technology-based companies seeking help in applying to federal and state R&D and commercialization funding programs. For more information, contact the MTIP Program Manager at (406) 841-2749 or visit MTIP's website at [www.mtip.mt.gov](#).

